

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

TIME SCHEDULE ORDER NO. R5-2008-XXXX

REQUIRING THE CITY OF ROSEVILLE
PLEASANT GROVE WASTEWATER TREATMENT PLANT
PLACER COUNTY
TO COMPLY WITH REQUIREMENTS PRESCRIBED IN ORDER NO. R5-2008-XXXX
(NPDES PERMIT NO. CA0084573)

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Regional Water Board) finds that:

1. On XX June 2008, the Regional Water Board adopted Waste Discharge Requirements (WDR) Order No. R5-2008-XXXX, prescribing waste discharge requirements for the City of Roseville (hereafter Discharger), Pleasant Grove Wastewater Treatment Plant (hereafter Facility), Placer County.
2. WDR Order No. R5-2008-XXXX, contains Final Effluent Limitations in Sections IV.A.1.a. and IV.A.2.a., which read, in part, as follows:

Table 6. Effluent Limitations and Table 7. Effluent Limitations

| Parameter | Units | Effluent Limitations | | | | |
|-----------------------------------|-------------|----------------------|----------------|---------------|-----------------------|-----------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum |
| <u>Cadmium, Total Recoverable</u> | <u>µg/L</u> | <u>1.4</u> | <u>--</u> | <u>3.3</u> | <u>--</u> | <u>--</u> |
| Cyanide | µg/L | 3.5 | -- | 9.6 | -- | -- |
| Dibromochloromethane | µg/L | 0.41 | -- | 0.82 | -- | -- |
| Dichlorobromomethane | µg/L | 0.56 | -- | 1.12 | -- | -- |
| <u>Zinc, Total Recoverable</u> | <u>µg/L</u> | <u>47</u> | <u>--</u> | <u>94</u> | <u>--</u> | <u>--</u> |

3. WDR Order No. R5-2008-XXXX, contains Final Effluent Limitations in Sections IV.A.1.g. and IV.A.2.g. which read as follows:

g. **Fluoride.** For a calendar year, the annual average effluent concentration shall not exceed 2,000 µg/L.

4. The effluent limitation specified in Order No. R5-2008-XXXX for cadmium, cyanide, dibromochloromethane, dichlorobromomethane, and zinc are based on implementation of the California Toxics Rule. The effluent limitation for fluoride is based on implementation of the Basin Plan chemical constituents objectives. The effluent limitations for cadmium, cyanide, dibromochloromethane, dichlorobromomethane, fluoride, and zinc are new and/or more stringent limitations, which were not prescribed in previous WDR Order No. 5-00-075, adopted by the Regional Water Board on 17 March 2000.

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5. California Water Code (CWC) section 13300 states: "Whenever a regional board finds that a discharge of waste is taking place or threatening to take place that violates or will

violate requirements prescribed by the regional board, or the state board, or that the waste collection, treatment, or disposal facilities of a discharger are approaching capacity, the board may require the discharger to submit for approval of the board, with such modifications as it may deem necessary, a detailed time schedule of specific actions the discharger shall take in order to correct or prevent a violation of requirements."

6. Federal regulations, 40 CFR 122.44 (d)(1)(i), require that NPDES permit effluent limitations must control all pollutants which are or may be discharged at a level which will cause or have the reasonable potential to cause or contribute to an in-stream excursion above any State water quality standard, including any narrative criteria for water quality. Beneficial uses, together with their corresponding water quality objectives or promulgated water quality criteria, can be defined per federal regulations as water quality standards.
7. In accordance with CWC section 13385(j)(3), the Regional Water Board finds that, based upon results of effluent monitoring, the Discharger is not able to consistently comply with the new and/or more stringent effluent limitations for cadmium, cyanide, dibromochloromethane, dichlorobromomethane, fluoride, and zinc. These limitations are based on new requirements that become applicable to the Order after the effective date of the waste discharge requirements, and after 1 July 2000, for which new or modified control measures are necessary in order to comply with the limitation, and the new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.
8. Immediate compliance with the new effluent limitations for cadmium, cyanide, dibromochloromethane, dichlorobromomethane, fluoride, and zinc is not possible or practicable. The Clean Water Act and the California Water Code authorize time schedules for achieving compliance.

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The Discharger has indicated in an Infeasibility Report submitted 17 March 2008, and revised on 2 May 2008, that additional time is required beyond the California Toxic Rule compliance date of 18 May 2010 to comply with the final effluent limitations for cadmium and zinc. In particular, the Discharger anticipates the need to implement additional source controls, as well as evaluate the need for site-specific translators and/or water effect ratios for cadmium and zinc. Therefore, the Regional Water Board is providing until 1 June 2013 for the Discharger to comply with the final effluent limitations for cadmium and zinc.

The Discharger has also indicated in the Infeasibility Report that additional time is required beyond the California Toxic Rule compliance date of 18 May 2010 to comply with the final effluent limits for dibromochloromethane and dichlorobromomethane. In particular, the Discharger anticipates that the addition of ultraviolet disinfection and eliminating chlorine in its treatment process will be necessary in order to comply with the effluent limitations, and the new or modified disinfection system and control measures cannot be designed, installed and put into operation within a reasonable period of time. Therefore, the Regional Water Board is providing until 1 January 2013 for the Discharger

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to comply with the final effluent limitations for dibromochloromethane and dichlorobromomethane.

The Discharger also indicated in their Infeasibility Report submitted 17 March 2008, and revised on 2 May 2008, that additional time is required beyond the California Toxic Rule compliance date of 18 May 2010 to comply with the final effluent limits for cyanide. In particular, the Discharger anticipates that the addition of ultraviolet disinfection and eliminating chlorine, as well as changing analytical laboratories to reduce the possibility of false positives is necessary in order to comply with the effluent limitations for cyanide. Therefore, the Regional Water Board is providing until 1 January 2013 for the Discharger to comply with the final effluent limitations for cyanide.

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In its revised infeasibility analysis dated 2 May 2008, the Discharger requested 5 years for compliance with the new fluoride effluent limitation. According to the infeasibility analysis, most if not all of the fluoride comes from one significant industrial user that discharges to the Facility. The Discharger has to amend its local limitations and provide the discharger time to research and explore options for either changing its manufacturing process or installing pretreatment equipment. Therefore, the Regional Water Board is providing until 1 June 2013 for the Discharger to comply with the final effluent limitations for fluoride.

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9. This Order provides a time schedule for the Discharger to develop, submit, and implement methods of compliance, including developing and implementing pollution prevention activities or constructing necessary treatment facilities to meet these new effluent limitations.
10. CWC sections 13385(h) and (i) require the Regional Water Board to impose mandatory minimum penalties upon dischargers that violate certain effluent limitations. CWC section 13385(j)(3) exempts certain violations from the mandatory minimum penalties, *"where the waste discharge is in compliance with either a cease and desist order issued pursuant to Section 13301 or a time schedule order issued pursuant to Section 13300, if all the [specified] requirements are met."*
11. Compliance with this Order exempts the Discharger from mandatory penalties for violations of effluent limitations for cadmium, cyanide, dibromochloromethane, dichlorobromomethane, fluoride, and zinc only, in accordance with CWC section 13385(j)(3). CWC section 13385(j)(3) requires the Discharger to prepare and implement a pollution prevention plan pursuant to section 13263.3 of the California Water Code. Therefore, a pollution prevention plan will be necessary for cadmium, cyanide, dibromochloromethane, dichlorobromomethane, fluoride, and zinc in order to effectively reduce the effluent concentrations by source control measures.
12. Since the time schedule for completion of action necessary to bring the waste discharge into compliance exceeds 1 year, this Order includes interim requirements and dates for their achievement. The time schedule does not exceed 5 years.

¶<#>The Discharger maintains and existing approved local pretreatment program to regulate discharges from non-residential users to the Facility. This program includes the necessary components for regulation of discharges to the Facility (e.g., industrial waste permits). ¶<#>As part of the pretreatment regulations at 40 CFR 403.5(c), the Discharger is already required to develop local limits as necessary to ensure renewed and continued compliance with their NPDES permit.¶<#>The Discharger already has local limits for fluoride applicable for discharges to the Dry Creek Wastewater Treatment Plant. In 2005, these local limits were removed because the major source of the discharge of fluoride to the Dry Creek Wastewater Treatment Plant was redirected to the Facility. ¶<#>In February 2006, the Discharger performed an infeasibility analysis for compliance with anticipated final effluent limitations for fluoride for this Facility. The proposed effluent limitations at that time were more stringent than the final WQBELs for fluoride in this Order.¶

¶Therefore, the Regional Water Board is providing until 1 January 2013 for the Discharger to comply with the final effluent limitations for fluoride. ¶

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The compliance time schedule in this Order includes interim performance-based effluent limitation for cadmium, cyanide, dibromochloromethane, dichlorobromomethane, fluoride, and zinc. The interim effluent limitations consist of a maximum daily effluent concentration derived using sample data provided by the Discharger. In developing the interim limitations, where there are 10 sampling data points or more, sampling and laboratory variability is accounted for by establishing interim limits that are based on normally distributed data where 99.9 percent of the data points will lie within 3.3 standard deviations of the mean (*Basic Statistical Methods for Engineers and Scientists, Kennedy and Neville, Harper and Row, 3rd Edition, January 1986*). Where actual sampling shows an exceedance of the proposed 3.3-standard deviation interim limit, the maximum detected concentration has been established as the interim limitation. In developing the interim limitations, when there are less than 10 sampling data points available, the USEPA *Technical Support Document for Water Quality-based Toxics Control* ((EPA/505/2-90-001), TSD) recommends a coefficient of variation of 0.6 be utilized as representative of wastewater effluent sampling. The TSD recognizes that a minimum of 10 data points is necessary to conduct a valid statistical analysis. The multipliers contained in Table 5-2 of the TSD are used to determine a maximum daily limitation based on a long-term average objective. In this case, the long-term average objective is to maintain, at a minimum, the current plant performance level. Therefore, when there are less than 10 sampling points for a constituent, interim limitations are based on 3.11 times the maximum observed effluent concentration to obtain the daily maximum interim limitation (TSD, Table 5-2).

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The following table summarizes the calculations of the interim performance-based effluent limitations for cadmium, cyanide, dibromochloromethane, dichlorobromomethane, fluoride, and zinc:

Interim Effluent Limitation Calculation Summary

| Parameter | MEC (µg/L) | Mean (µg/L) | Std. Dev. | # of Samples | Interim Limitation (µg/L) |
|-----------------------------------|-------------------|--------------------|------------------|---------------------|----------------------------------|
| <u>Cadmium, Total Recoverable</u> | <u>5.6</u> | <u>2.5</u> | <u>1.8</u> | <u>12</u> | <u>8.4</u> |
| <u>Cyanide</u> | <u>29</u> | <u>8.1</u> | <u>9.5</u> | <u>12</u> | <u>39</u> |
| <u>Dibromochloromethane</u> | <u>7.4</u> | <u>--</u> | <u>--</u> | <u>7</u> | <u>23</u> |
| <u>Dichlorobromomethane</u> | <u>24</u> | <u>--</u> | <u>--</u> | <u>7</u> | <u>75</u> |
| <u>Fluoride</u> | <u>3,600</u> | <u>--</u> | <u>--</u> | <u>7</u> | <u>11,200</u> |
| <u>Zinc, Total Recoverable</u> | <u>96</u> | <u>--</u> | <u>--</u> | <u>7</u> | <u>300</u> |

13. The Regional Water Board finds that the Discharger can, in addition to other treatment and control options, undertake source control to maintain compliance with the interim limitations included in this Order. Interim limitations are established when compliance with the final effluent limitations cannot be achieved by the existing discharge. Discharge of constituents in concentrations in excess of the final effluent limitations, but in compliance with the interim effluent limitations, can significantly degrade water quality and adversely affect the beneficial uses of the receiving stream on a long-term basis.

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The interim limitations, however, establish an enforceable ceiling concentration until compliance with the effluent limitation can be achieved.

14. On XX June 2008, in Rancho Cordova, California, after due notice to the Discharger and all other affected persons, the Regional Water Board conducted a public hearing at which evidence was received to consider a Time Schedule Order under CWC section 13300 to establish a time schedule to achieve compliance with waste discharge requirements.
15. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code section 21000, et seq.), in accordance with CWC section 15321 (a)(2), Title 14, California Code of Regulations.
16. Any person adversely affected by this action of the Regional Water Board may petition the State Water Resources Control Board to review this action. The petition must be received by the State Water Resources Control Board, Office of the Chief Counsel, P.O. Box 100, Sacramento, CA 95812-0100, within 30 days of the date on which this action was taken. Copies of the law and regulations applicable to filing petitions will be provided on request.

IT IS HEREBY ORDERED THAT:

1. The Discharger shall comply with the following time schedule to ensure compliance with cadmium, cyanide, dibromochloromethane, dichlorobromomethane, and zinc effluent limitations at Sections IV.A.1.a, and IV.A.2.a, contained in WDR Order No. R5-2008-XXXX as described in the above Findings. The Discharger shall also comply with the following time schedule to ensure compliance with fluoride effluent limitations at Sections IV.A.1.g and IV.A.2.g, contained in WDR Order No. R5-2008-XXXX as described in the above Findings.

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Task

Submit Method of Compliance Workplan/Schedule

Submit Pollution Prevention Plan (PPP)¹ pursuant to CWC section 13263.3 for cadmium, cyanide, dibromochloromethane, dichlorobromomethane, fluoride, and zinc.

Implement PPP¹ pursuant to CWC section 13263.3 for cadmium, cyanide, dibromochloromethane, dichlorobromomethane, fluoride, and zinc

Progress Reports²

Full compliance with cyanide, dibromochloromethane and

Date Due

Within 6 months after adoption of this Order.

Within 1 year after the permit adoption date

Within 2 years after the permit adoption date

1 January, annually,
after approval of
work plan until final
compliance

1 January 2013

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dichlorobromomethane effluent limitations

Full compliance with cadmium, fluoride and zinc effluent limitations

1 June 2013

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- ¹ The PPP shall be prepared and implemented for cadmium, cyanide, dibromochloromethane, dichlorobromomethane, fluoride, and zinc, as appropriate, and shall meet the requirements specified in CWC section 13263.3.
- ² The progress reports shall detail what steps have been implemented towards achieving compliance with waste discharge requirements, including studies, construction progress, evaluation of measures implemented, and recommendations for additional measures as necessary to achieve full compliance by the final date.

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2. The following interim effluent limitations shall be effective immediately. The interim effluent limitations for cyanide, dibromochloromethane and dichlorobromomethane shall be effective up through **31 December 2012**, or when the Discharger is able to come into compliance with final effluent limitations, whichever is sooner:

| Parameter | Units | Maximum Daily Effluent Limitation |
|----------------------|-------------|-----------------------------------|
| <u>Cyanide</u> | <u>µg/L</u> | <u>39</u> |
| Dibromochloromethane | µg/L | 23 |
| Dichlorobromomethane | µg/L | 75 |

3. The following interim effluent limitations shall be effective immediately. The interim effluent limitation for cadmium, fluoride, and zinc shall be effective up through **31 May 2012**, or when the Discharger is able to come into compliance with final effluent limitations, whichever is sooner:

| Parameter | Units | Maximum Daily Effluent Limitation |
|-----------------------------------|-------------|-----------------------------------|
| <u>Cadmium, Total Recoverable</u> | <u>µg/L</u> | <u>8.4</u> |
| Fluoride | µg/L | 11,200 |
| <u>Zinc, Total Recoverable</u> | <u>µg/L</u> | <u>300</u> |

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¶ Parameter ... [2]

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4. For the compliance schedule required by this Order, the Discharger shall submit to the Regional Water Board on or before each compliance report due date, the specified document or, if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, and shall include an estimate of the date when the

Discharger will be in compliance. The Discharger shall notify the Regional Water Board by letter when it returns to compliance with the time schedule.

5. If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may apply to the Attorney General for judicial enforcement. If compliance with these effluent limitations is not achieved by the full compliance date, the discharge would not be exempt from the mandatory minimum penalties for violation of certain effluent limitations, and would be subject to issuance of a Cease and Desist Order in accordance with CWC section 13301.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on XX June 2008.

PAMELA C. CREEDON, Executive Officer

Full compliance with cyanide effluent limitations

1 June 2013

The following interim effluent limitations shall be effective immediately. The interim effluent limitation for cyanide shall be effective up through **31 May 2013**, or when the Discharger is able to come into compliance with final effluent limitations, whichever is sooner:

| Parameter | Units | Maximum Daily Effluent Limitation |
|-----------|-------|-----------------------------------|
| Cyanide | µg/L | 39 |